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ABSTRACT

While some educators have attributed early school failure to improper grade placement and thus advocate grade placement according to developmental age, others believe that early school failure is due to the lack of academic preparation for young children by their parents or by preschools. This paper examines related literature for empirical evidence to support the developmental view of early school failure, exploring the history of developmental education as applied to school readiness and the use and effectiveness of developmental screening. The paper argues that research on developmental placement is not completely credible for three reasons. First, ambiguity in the definition of readiness used by researchers and educators reveals two different constructs of readiness: learning readiness, accepted by child development theorists, and school readiness, more focused on academic skills. Second, school districts with developmental transition programs in place fail to conduct meaningful longitudinal studies. Third, the validity of assessment tools for developmental age has been questioned. The paper concludes by asserting that more consistent and meaningful research is needed in connection with developmental placement and school readiness. (Contains 18 references.) (KB)

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A Review of the Literature Regarding the Developmental View of Early School Failure and its Lack of Supporting Empirical Evidence

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Abstract

The purpose of this study was to determine the reasons for lack of convincing empirical evidence to support the developmental view on early school failure despite its popularity in practice. The researcher reviewed the literature on developmental education to see if patterns existed. It was determined that the lack of support stems from three avenues. First, the research itself is inconsistent due to two distinctly different definitions of the term school readiness, which are not differentiated in text. Second, school districts that have developmental transition programs in place fail to do meaningful longitudinal studies. Third, the validity of assessment tools for developmental age is in question.

A Review of the Literature Regarding the Developmental View as to Early School Failure and its Lack of Supporting Empirical Evidence

The researcher found literature replete with expressed concerns over the number of children who are facing school failure in the early elementary grades (Grant, 1987). Educators vary in their beliefs of what causes this phenomenon. Those educators who espouse a developmental philosophy believe that early school failure is due to improper grade placement. This philosophy dictates that children should start school and subsequently be placed into a specific grade according to his/her developmental age as opposed to the chronological age. Other educators believe it is due to lack of academic preparation for young school children by parents or pre-schools. This philosophy dictates a push down curriculum and more pre-kindergarten schooling. There is another faction that espouses to the belief that schools are not effective in the training of young children. This philosophy calls for more teacher accountability and training.

Purpose

The purpose of this review was to analyze and synthesis the related literature as to the lack of empirical evidence to support the developmental view in regards to early school failure. This review explored the history of developmental education as it applies to school readiness and the use and effectiveness of developmental screening. It examined studies to determine why clear-cut patterns are not established.

Historical Background

Developmental philosophy is not a new ideology it has been in the education forum for the past two hundred years. Developmental education is based on the premise that learning is based on a process that develops naturally. This being the case there is a

distinct relationship between human development and learning.

According to a peer reviewed electronic journal written by Stone (1996), the views of Developmentalists center on the belief that children develop through a series of undeniable natural phases and education should match these phases. According to the same author, G. Stanley Hall, may been the most influential theorist of the American Developmental Education field. Hall believed that quality teaching was dictated by patterns of development based on human evolution. He believed the school should be fitted to the child rather than vice versa. His use of child study as a method of exploring educational practices had a great influence on American education.

The use of child study as a way to improve American education was carried on by his student, Arnold Gesell, who went on to be one of the most influential developmental placement advocates of the twentieth century. Gesell felt that just like a flower, children follow patterns of nature. Each child has his/her own biological clock, which dictates stages of development. Therefore, readiness is a controlled biological characteristic of the child. Asking a child to perform a task at which he is not developmentally ready for can lead to learning and/or behavior difficulties. (Mantzicopoulos & Neuharth-Pritchett, 1998) Hillsborough Public Schools formed and implemented their developmental placement practices based on the philosophy of Arnold Gesell.

According to Uphoff (1995), the turning point in American education was the launching of Russia's Sputnik satellite in 1957. The United States was unable to match this feat. This began the race to teach American children faster and younger. Problems of this push down curriculum were seen as early as the 1960's. Many teachers were finding that young children could not write or read and related this to the lack of physical

development of their fine motor skills and eye development. This is when the movement behind the studies of Dr. Gesell began to take hold. Teachers and parents felt that giving children an extra year to develop and mature worked better than grade retention.

The 1970's and 80's were marked by major support of developmental practices. Readiness and transition programs spread across the country. By 1989, The New Hampshire Association of Readiness Teachers represented 57 school districts in that state alone. Uphoff (1995) also notes that because of its rapid growth careful planning and study did not take place.

During the late 1980's the relationship between learning and development was reassessed. Studies were showing that American children were still behind children in other countries academically (Rusch, 1998). The theories of Lev Vygotsky became popular, challenging the practices of Gesell. Vygotsky believed that children grow into the intellectual life around them and their development is catapulted by learning. A child operates in his "zone of proximal development", which is the area between what he can do developmentally by himself and that which he can do developmentally with assistance from adults and more capable peers (Kagan, 1990). The shift swung from the child needing to be ready for school to the school needing to be ready for the child. This is not a characteristic of the transition programs sanctioned by Developmentalists

In 1989, a negative campaign began to appear in national publications. L.A. Shepherd and M.L. Smith added to this campaign with extensive work in their book, Flunking Grades. This work was a review of studies done on transition programs. Uphoff (1995) claims that the findings in these studies were manipulated in that the authors only looked at the data on standardized tests. Some of the original studies quoted actually supported

transition programs.

The kindergarten curriculum continued to change as a result of the criticism of American schools. Kindergartens across the country were assuming some of the academic teachings of the first grade curriculum and attendance in some form of pre school education were highly encouraged. These practices were encouraged more in 1998 when then President Bush made the first of six national school goals to read, "by the year 2000, all children in America will start school ready to learn." (Lewit, 1995) The National Goals heightened the concern of the Developmentalists fearing more children would be placed "at risk" and intensified the curriculum in early childhood's learning programs, which were already being attacked for being too academic. In 1989, the professional and public outcry in opposition of the "overly academic" kindergarten was evident in a study done by Knudsen-Lindauer and Harris. Both parents and teachers responses to a survey indicated concern over the kindergarten curriculum as being too aggressive. The National Goals placed an enormous responsibility on society and the education community. It also had a profound effect on the interpretation of the word readiness and the research, which corresponds to it.

School Readiness

One of the major problems in studying and discussing the issues concerning the data regarding school readiness is the lack of clarity of its definition in the literature (Kagan, 1990; Baker & Lewit, 1995; Matthews, May & Kundert, 1999). There is a general lack of agreement on what constitutes readiness and how to measure it (Baker & Lewit, 1995). The literature reveals two distinct constructs of the term school readiness: readiness to learn and readiness for school.

Readiness to learn is the construct accepted by theorists in child development (Baker & Lewit, 1995). Accordingly, readiness is the level of development in which an individual has the capacity to absorb the learning of a particular material. Many factors can affect readiness to learn. They include physical development, emotional maturity, intellectual ability and health. This view is more holistic in nature. It encompasses the whole child as opposed to looking at the intellectual tendencies alone. Within this construct, there is a sub category, which is maturational readiness. In addition, this construct includes the belief that children do not develop at the same time; hence they will not reach readiness to learn at the same time. Readiness for school is often equated with reading readiness. It encompasses specific cognitive and linguistic skills. This form of readiness is usually assessed with a fixed standard in which a child must achieve to absorb the curriculum content. This standard can be physical, intellectual or social.

Some studies indicate that parents have a tendency to put more of an emphasis on readiness for school while kindergarten teachers lean towards readiness to learn. According to the 1991 National Kindergarten Teacher Survey on Student Readiness, teachers viewed being physically healthy, rested and well nourished as the most important part of school readiness. In addition, parents agree with these characteristics yet 60% of the parents felt that knowing the alphabet before kindergarten is essential for school readiness, only 10% of the teachers agreed (Baker & Lewit, 1995). Harris and Lindauer found similar results in their survey of 1989. They found parents and teachers agreed as to what the most and least important skills needed for kindergarten were but found parents rated writing, reading, and counting significantly higher.

When researchers, legislatures, parents and educators use the term school

readiness, they do not always state which construct guides their thought processes. The same label is being used to measure two different concepts. Readiness to learn involves same label is being used to measure two different concepts. Readiness to learn involves the development of the whole child, whereas the readiness for school looks simply at skills through academic eyes. Research and communication in this area are inconclusive and non-supportive partially due to the ambiguity of the term readiness.

Measurement Testing

The use of the Gesell Kindergarten Developmental Assessment is criticized highly in the research as to its validity and accuracy. (Matthew, May & Kundert, 1999) This assessment is administered individually and is made up of an initial interview of the child's background, pen and pencil tasks (letters, copy forms, and numbers), completion of an incomplete man, building with cubes, and three verbal tasks (naming animals, stating interests and an interview). It takes approximately twenty minutes to administer. The examiner observes the child's behaviors and assesses him on the quality of the tasks as well as the manner in which he does each task. In addition, the assessor notes behaviors that are indicative of a particular developmental age. The results of this assessment yield a developmental age, the age at which the whole child is performing, intellectually, physically, socially and emotionally.

Researchers have long criticized the lack of technical accuracy of the Gesell Developmental Assessment (Matthew, May, & Kundert, 1999). Some early childhood specialists contend that a child's development is continually evolving and growing. Assessment is only of a particular moment and does not reflect the next moment (Kagan, 1990). Others contend that the instruments used are not accurate and measure intelligence

and not developmental age. According to Shepard and Smith (1986), only one study has been done reporting reliability co-efficient for the Gesell Developmental Assessment. Kaufman and Kaufman did this in 1972. But the authors contend that the error of measurement was great and reliability of testing was poor. They also conclude that the testing done by Wood et al. in 1984 looked like there was a credible relationship between teacher predictability and developmental youngness (78%). In actuality, only half of the students identified by both groups were done so accurately. However, the authors fail to state how they were drawn to this conclusion and on what criteria this statement was based. May and Welch (1986) and King (1984) found that the measurements of the Gesell School Readiness Test were sensitive to the differences in performances of children in different birthdate groups. In addition, May and Welch (1986) found no significant difference of these same groups on the Stanford Achievement Test.

If the Gesell Assessment is of little statistically reliability why is it so popular? The research previously mentioned (1991 Kindergarten Survey on Student, 1984 Wood et al.) supports a relationship between teacher prediction and developmental age determined by the Gesell Assessment. If the behavior of a child as seen by the teacher is validated by the results of the Gesell Assessment then the use of this instrument will continue because it validates what the teacher believes to be true.

The Effectiveness of Developmental Placement

William Hedges (1978) did a comprehensive review of the literature regarding the entry age of children into first grade from 1915 to 1976. From the research he concluded the following information about first grade placement. Chronological age was the most consistent, objective, and popular manner to place children into first grade. A significant

factor in assuring success in first grade is mental age, although by it is not sufficient. The mental age of a child entering first grade should be six years, six months or more. IQ, emotional stability and type of program are all factors entered into the amount of success a first grader achieves. Hedges concludes that children entering kindergarten or first grade before they are five or six respectively tend to have more scholastic, social and emotional problems than children entering at an older age. The male population in transition programs was significantly higher.

Shepherd and Smith (1986) reviewed the literature on school readiness and kindergarten retention from the readiness for school viewpoint and found similar results. They found that when the youngest child is compared to the oldest child in the classroom, they are nearly always less successful. But the authors feel that the significant statistical differences are not large enough. For example, in 1985 Shepherd and Smith found that the youngest three months students of a first grade class scored on the average at the 62nd percentile while the oldest three months scored at the 71st percentile. In addition, they found that the achievement difference of the youngest and the oldest first grade is on the order of 7 or 8 percentile points. They consider both of these differences too small to be a concern. They contend that by the time the child reaches the third grade these differences disappear completely.

The authors report that Gredler in 1984 located five studies, which evaluated transition room students. Only one study indicated a benefit or achievement gain as a result of the developmental placement. The authors conclude that the disadvantages of the youngest first grader are small and there is no achievement gain benefit from developmental placement. This study does not include the evaluation of developmental

placement for the social and emotional aspect of the first grade but looks at the issue as academic achievement. While the authors agree there is a disadvantage to being the youngest. They reject its importance because it is too small of a percentage to be considered a disadvantage. Which is in direct contrast with King's (1984) review of the literature.

King (1984) concludes from her research that chronological age is not an accurate determiner of school success and an additional year of school for maturation reasons has a positive and long-term effect on school success.

Matthews, May and Kundert (1999) did a longitudinal study on developmental placement. Their study included middle school students from four groups: students who attended a pre-kindergarten class, students who attended a pre first class, students who were identified as developmentally young but not placed in a transition program and a control group. The definition of readiness was clearly understood to be that of readiness to learn. The study looked at the whole child. Even though this research examined social and emotional behaviors, it did not support the claim that improvement in this area occurred after developmental placement. In fact they found the children who were identified and not placed developmentally were no more likely to miss school or have poorer social development ratings than the developmentally placed students were.

Either developmentally placed group was more than twice as likely to drop out of school than the identified but not developmentally placed group. They were more than ten times more likely to drop out than the control group. (Caution was noted by the authors in interpreting the results because of the relatively small number of dropouts.)

The retention rate of the identified but not placed students was significantly higher

than the developmentally placed and controls groups. Although, this supports the theory that developmental placement prevents early school failure, the authors see this as a concern. Since the students who were developmentally placed had a significantly higher rate of later placement into special needs classes, it is the contention of the authors that developmentally young children possibly are being wrongly identified. In actuality, they are children with special needs. The authors note that the weakness of this study is that the developmental programs themselves were not evaluated, only students. The interactions between the students and the program are crucial and vital to understanding the effectives of any methodology. They also recommend that once a child is identified as being developmentally young, a full comprehensive assessment should be done to determine if the child is in need of special services.

In contrast, Mantzicopoulos and Neuharth-Pritchett (1998) compared two groups of first grade students, a group which were developmentally placed and a group who were identified as ready for first grade. Their goal was to extend their knowledge of the transitions program by assessing the characteristics of the children enrolled in them. These included: self-perception of competency, achievement indicators and social behavioral adjustments in the school settings. This study looked at the whole child and was evaluating readiness to learn.

The researchers found that the characteristics that were the most important predictors of a candidate for developmental placement were: chronological age, developmental age and teacher rated academic competency. The referred children were found to lag four months on the Gesell Assessment behind those children who were not referred. A one-month decrease in chronological age was associated with a 6% chance of

being referred to the transition program. A one-month decrease in developmental age was associated with a 7 % chance of being referred.

The authors found that there was no evidence to support a larger male population in the referred group. They found that the referred children were less likely to hold favorable images of their cognitive competency. This study offered some insight into the students who were enrolled in this transition program and showed a relationship between developmental age and children who were referred. It lacked supporting information on the effectiveness of the program itself.

Uphoff (1995) did extensive research on developmental placement. He collected data from over thirty-eight studies supporting developmental placement. The data is representative of examining readiness to learn and includes district studies as well as individual school studies.

The author relates a longitudinal study done by Caggiano (1984), comparing three groups in first grade: those attending a transition group (T-1), those invited but did not attend (T-1R) and those who were not invited to attend (1-R) between the T-1 and T-1R Groups. He found no significant academic achievement differences between Groups T-1 and T-1R.

However, the T-1R group experienced a significantly greater number of retentions than the other two groups, had a significantly greater number of attention problems, anxiety withdrawals, and motor excess than the other two groups. He concluded that students judged not ready for first grade are more likely to adjust positively and achieve school success if placed in a transition program.

However, Shepard in her book, Flunking Grades, states that Caggiano (1984) found essentially no benefit for immature children assigned to extra year placement.

Shepherd looked only at the academic data and ignored the rest. Thus showing that interpretation of the word readiness has an impact on data analysis.

De Simone & Sweetland (1987), Matthews, May and Kundert (1999), and Kinard & Reinherz (1986) all did studies on the effects of birthdate and school performance. They concluded that younger children have lower academic achievement scores than their older peers do but these differences diminish as the children age.

Conclusion

The research thus far showed that in light of the present political arena, the controversy surrounding school readiness makes it an important education issue. There are three reasons the research on developmental placement is not totally credible. First, there are two distinct definitions of school readiness, which makes the findings of the research inconsistent. Due to the many interpretations of the word school readiness, much of the data supporting developmental placement is misinterpreted. The review of literature indicates that most studies, which dispute the effectiveness of developmental placement, are looking at readiness for school. They concentrate purely on academic competency and not social and emotional characteristics. The research, which supports developmental placement, looks at the child holistically and analyzes the data in that light.

Second, the use of developmental assessment tools is not given credence in the academic world. This researcher could not find any convincing data, which supported any one's credibility. Third, very few school districts have done meaningful longitudinal studies on Transition Programs once in place to determine their effectiveness.

The research makes it apparent that more consistent and meaningful research needs to be done in connection with developmental placement and school readiness.

Universal language of terms and expectations are needed. Districts who have programs in place should be doing long-term studies as to their effectiveness of the existing studies. Research needs to include programs and assessment tools, which operate under clear and operable term for school readiness in order to provide the empirical support, needed to justify the philosophy behind transition programs. .

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